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Patent Claims

1. A process for producing a shaped body, characterized in that a material with a metal carbide surface is heated in a defined region of its surface, in the presence of a reaction gas, a shielding gas or in a vacuum, by means of a radiation source, in such a manner that in this region the metal carbide is locally converted into carbon.
2. The process as claimed in claim 1, characterized in that the metal carbide is locally irradiated with the aid of a radiation source and in the process is heated to 600-1500°C, and at the same time the metal carbide surface is exposed to a reaction gas, the reaction gas being such that in the predetermined temperature range it is able to dissolve the metal of the metal carbide and leave behind carbon.
3. The material as claimed in claim 2, characterized in that the reaction gas used is a carrier gas mixed with a halogen.
4. The process as claimed in claim 3, characterized in that the halogen used is chlorine and the carrier gas used is argon.
5. The process as claimed in claim 1, characterized in that the surface which is irradiated with a radiation source is locally heated to more than 1500°C and less than 2200°C and is exposed to a vacuum or shielding gas, with metal carbide decomposing into metal and carbon without the involvement of foreign elements.
6. The process as claimed in one of claims 1 to 5, characterized in that the radiation source used is a

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laser, a microwave or an electron beam.

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